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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,204	08/31/2001	David J. Domingues	PIL0060/US	4507
33072	7590	11/27/2006	EXAMINER	
KAGAN BINDER, PLLC SUITE 200, MAPLE ISLAND BUILDING 221 MAIN STREET NORTH STILLWATER, MN 55082			TRAN LIEN, THUY	
			ART UNIT	PAPER NUMBER
			1761	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/945,204

Applicant(s)

DOMINGUES, DAVID J.

Examiner

Lien T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,15-20,22-44,46-48,50,51,53,56,58 and 59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-13,15-20,22-44,46-48,50,51,53,56, 58-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Claims 1,3-13, 15-20, 22-44, 46-48, 50-51, 53,56,58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy et al (6261613) in view of Gulstad et al.

Narayanaswamy et al disclose a refrigerated dough composition. The dough comprises basic active ingredient that is encapsulated in a shell of lipid material and acidic active ingredient. The lipid material has a melting point in the range 35-54.4 degree C. The dough is stored at refrigerated temperature in the range of 37.4-46 degree F and is stable for a period of six weeks or more. The dough is packaged in a container. The leavening acid is selected from the acids cited on col. 8 lines 44-50. The reaction between the basic ingredient and the acid is prevented by the encapsulation. The liberation of carbon dioxide at the right time during the baking cycle is critical to the development of the structure and texture of the baked product. The leavening acid may also be encapsulated. The encapsulated sodium bicarbonate has an average particle size in the range of 100-250 microns. Narayanaswamy et al disclose on column 9 lines 5-10, the capsules have a core content in a range of 10-70% and the shell comprises about 30-90% by weight of the total encapsulated particle (see col. 4 lines 33-62, columns 5-6, col. 8 lines 39-67, col. 9 lines 19-24 and the examples)

Narayanaswamy et al do not disclose the raw specific volume, baked specific volume, the acid leavening agent is selected to have low solubility, the type of barrier material as claimed, the baking temperature as claimed and encapsulating using a fluidized bed.

Gulstad et al disclose doughs comprising encapsulated basic and acidic ingredients. They teach leavening during cooking can be accomplished by using

leavening agents which are only nominally active at room temperature or by protecting the agents. Acidic ingredients which are only nominally active at room temperature are sodium aluminum sulfate, dicalcium phosphate dihydrate and sodium aluminum phosphate. (see column 3 lines 54 through col. 4 line 41)

While Narayanaswamy et al disclose some of the same acidic ingredient as claimed, they do not specifically disclose selecting the acidic ingredient to have relatively low solubility. However, it would have been obvious to choose acidic ingredient among the materials disclosed to be nominally active at below baking temperature as taught by Gulstad et al to ensure the delaying of the chemical reaction between the leavening agents. This furthers the objective of Narayanaswamy et al because they disclose to prevent reaction between the basic material and leavening acid till baking. The leavening basic ingredient in Narayanaswamy et al is encapsulated and the barrier material has a melting point within the range claimed; thus, it is inherent the dough will possess similar degree of expansion, stability and carbon dioxide release as claimed and the activity of the encapsulated basic ingredient is within the range claimed. Page 22 of the specification discloses " the relative amount by weight of active ingredient to total encapsulated particle weight is referred to as activity; thus an activity 55-70% means the active ingredient is in the range of 55-70%. Narayanaswamy et al disclose on column 9 lines 5-10, the active ingredient is in the range of 10-70% which fall within the range claimed. When sodium aluminum phosphate is used, it is obvious it will have the same solubility as claimed. It would have been obvious to use any known method in the art to encapsulate the leavening system and fluidized bed is a well known method in the art to use in encapsulating

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technique. As to the raw and baked specific volumes, these vary with the type of dough and can readily be determined by one skilled in the art to obtain the most optimum product. It would have been obvious to one skilled in the art to determine this value depending on the degree of encapsulation, the amount of leavening used and the type of dough. The same factors will also be considered in the baked specific volume. The baking temperature also varies with the types of dough product and the degree of cooking desired. It is within the skill of one in the art to determine such parameter. It would also have been within the skill of one in the art to determine the appropriate amount of basic ingredient and leavening acid to use depending on the type of dough made. Narayanaswamy et al show in the examples that the amount of leavening agent used can vary depending on the type of dough. Narayanaswamy et al disclose triglycerides such as found in hydrogenated vegetable oil is used as the barrier material. Thus, it would have been obvious to one skilled in the art to use any known triglyceride materials and all the oils claimed are well known triglycerides.

In the response filed 9/18/06, applicant argues Narayanaswamy does not disclose that the encapsulated basic active ingredient has an activity in the range of from about 55% to about 70% and does not disclose any suggestion for modification. This argument is not persuasive. Page 22 of the specification discloses "the relative amount by weight of active ingredient to total encapsulated particle weight is referred to as activity; thus an activity of 55-70% means the active ingredient is in the range of 55-70%. Narayanaswamy et al disclose on column 9 lines 5-10, the active ingredient is in the range of 10-70% which fall within the range claimed. Applicant argues Gulstad fails to cure the deficiency of Narayanaswamy because Gulstad does not disclose using an encapsulated base having an activity in the range of about 55-70%. The

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Gulstad reference is only relied upon why it would have been obvious to select leavening acids that are nominally active at below baking temperature. It is not used to show why one would encapsulate the basic active ingredient having the activity claimed because Narayanaswamy also teaches this feature. Applicant further comment that the activity of the dough is not claimed.

Applicant's arguments filed 9/18/06 have been fully considered but they are not persuasive.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien Tran whose telephone number is 571-272-1408. The examiner can normally be reached on Monday, Wednesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached 71-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 22, 2006

*Lien Tran*  
LIEN TRAN  
PRIMARY EXAMINER  
*Group 1700*